

**CALCULATION OF QUARTERLY OFFSETS FOR GWF HENRIETTA PEAKER PROJECT**

**Henrietta Peaker Plant (TPP)**

Project Emissions 2x GE LM6000	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
NOx	24,769	24,769	24,769	24,769	99,076
VOC	4,740	4,741	4,741	4,740	18,962
PM-10	13,671	13,671	13,672	13,671	54,685
SO2	1,249	1,250	1,250	1,249	4,998

- (1) Project turbine emissions calculated from 63F, 100% load (annual average conditions) and include 300 start-up and 300 shutdown events  
(2) Turbine is assumed to operate 8000 hours/yr  
(3) Project emissions assumed with Evaporative Cooler on  
(4) VOC emissions from average conditions (0.60 ppmvd @ 15%O2) ratioed up to permit limit of 2 ppmvd @15%O2 for calculation of offsets burden.  
(5) CO emissions not included because maximum project CO emissions are below offsets thresholds, and CO is an attainment, non-precursor pollutant.  
(6) Annual project emissions include planned emergency generator testing (13 hours/year).

**Emission Reduction Credits**

NOx	Location of Reduction	How Created					
		<b>SJVUAPCD NSR NOx Offset Allowance per Rule 2201.6.8.2.2:</b>	<b>5,000.0</b>	<b>5,000.0</b>	<b>5,000.0</b>	<b>5,000.0</b>	<b>20,000</b>
C-410-2	525 W. Third St., Hanford	Source Shutdown	22,510.0	0.0	0.0	5,708.0	
C-411-2	525 W. Third St., Hanford	Source Shutdown	5,205.0	4,562.0	4,562.0	7,991.0	
C-412-2	525 W. Third St., Hanford	Source Shutdown	0.0	0.0	0.0	1,915.0	
Source A*	Elk Hills (Kern County)	Process Modification	20,010.0	39,450.0	40,330.0	40,330.0	

NOx Offset Credit Calculations

C-410-2	Distance Ratio 1.5					15,006.7	0.0	0.0	3,805.3	
C-411-2	Distance Ratio 1.5					3,470.0	3,041.3	3,041.3	5,327.3	
C-412-2	Distance Ratio 1.5					0.0	0.0	0.0	1,276.7	
Source A*	Distance Ratio 1.5					13,340.0	26,300.0	26,886.7	26,886.7	
						<b>31,816.7</b>	<b>29,341.3</b>	<b>29,928.0</b>	<b>37,296.0</b>	<b>128,382.0</b>

VOC	Location of Reduction	How Created					
S-1567-1	20807 Stockdale Hwy, Bakersfield	Source Shutdown	2,728.0	2,626.0	2,626.0	2,728.0	
S-1537-1	2512 Coffee Road, Bakersfield	Source Shutdown	1,306.0	1,709.0	1,829.0	1,157.0	
S-1538-1	2512 Coffee Road, Bakersfield	Source Shutdown	12,029.0	13,701.0	14,447.0	13,112.0	

VOC Offset Credit Calculations

S-1567-1	Distance Ratio 1.5		1,818.7	1,750.7	1,750.7	1,818.7	
S-1537-1	Distance Ratio 1.5		870.7	1,139.3	1,219.3	771.3	
S-1538-1	Distance Ratio 1.5		8,019.3	9,134.0	9,631.3	8,741.3	
		Total	10,708.7	12,024.0	12,601.3	11,331.3	46,665.3
		VOC Offsets Needed	4,740.0	4,741.0	4,741.0	4,740.0	18,962.0
S-1538-1	ERC's Remaining on Certificate	(Factor Back Applied 1.5 Ratio)	8,953.0	10,924.5	11,790.5	9,887.0	

PM-10	Location of Reduction	How Created					
C-0366-4	710 Bainum Ave., Corcoran	Source Shutdown	5,699.0	5,087.0	7,081.0	6,732.0	
C-414-5**	525 W. Third St., Hanford	Source Shutdown	23,108.0	12,872.0	8,356.0	16,579.0	
C-415-5**	525 W. Third St., Hanford	Source Shutdown	6,832.6	0.0	0.0	6,466.6	
C-413-5**	525 W. Third St., Hanford	Source Shutdown	10,000.0	10,000.0	10,000.0	10,000.0	

PM-10 Offset Credit Calculations

C-0366-4	Distance Ratio 1.5	3,799.3	3,391.3	4,720.7	4,488.0	16,399.3
C-414-5**	Distance Ratio 1.5/Interpollutant Ratio 1.4 = 1.9	12,162.1	6,774.7	4,397.9	8,725.8	
C-415-5**	Distance Ratio 1.5/Interpollutant Ratio 1.4 = 1.9	3,596.1	0.0	0.0	3,403.5	
C-413-5**	Distance Ratio 1.5/Interpollutant Ratio 1.4 = 1.9	5,263.2	5,263.2	5,263.2	5,263.2	
	Total	24,820.7	15,429.2	14,381.7	21,880.4	76,512.1
	PM-10 Offsets Needed	13,671.0	13,671.0	13,672.0	13,671.0	54,685.0
C-414-5**	ERC's Remaining on Certificate (Factor Back Applied 1.9 Ratio)	21,184.4	3,340.6	1,348.5	15,597.9	

SO2	Location of Reduction	How Created					
C-392-5	525 W. Third St., Hanford	Source Shutdown	2,500.0	2,500.0	2,500.0	2,500.0	

SO2 Offset Credit Calculation

C-392-5	Distance Ratio 1.5			1,666.7	1,666.7	1,666.7	1,666.7	
		Total		1,666.7	1,666.7	1,666.7	1,666.7	6,666.7
		SO2 Offsets Needed		1,249.0	1,250.0	1,250.0	1,249.0	4,998.0
C-392-5	ERC's Remaining on Certificate	(Factor Back Applied 1.5 Ratio)		626.5	625.0	625.0	626.5	

Footnote:

- \* Certificate transfer to GWF is not completed at time of AFC submittal  
\*\* SO2 used for PM-10 at ratio of 1.9:1 (see analysis attached in Appendix)